

RURAL DISTRICT OF
SOUTH WESTMORLAND

ANNUAL REPORT

OF THE

Medical Officer of Health

FOR THE YEAR

1953

LIVERPOOL

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1954

*To the Chairman and Members of the Rural District Council of
South Westmorland.*

SIR, LADIES AND GENTLEMEN,

I have the honour to submit to you my Annual Report on the health of the Rural District during the year 1953.

There are signs of better unity between the hospitals, general practice and the public health services. The upheaval of the National Health Service Act of 1946 drove deep schisms into the old established partnership. Good will and professional loyalties are gradually restoring a unity of purpose.

Undue emphasis still lies on disease and its treatment, but the ever mounting cost is a solemn reminder that prevention might be better. The cherished Garden of Eden now has the serpent of fiscal expediency.

In the field of preventive medicine the scope is unlimited for those who have the courage to look beyond their immediate surroundings. The service has a proud record in the past and an unquenchable faith in the future.

I wish to acknowledge the help and ready co-operation of my colleague, the County Medical Officer of Health, and also the assistance afforded to me by the local general medical practitioners.

I am indebted also to the Chief Sanitary Inspector and his staff for the spirit of teamwork which exists in my department, and for the fund of local knowledge which they have laid at my disposal.

I have the honour to be,

Sir, Ladies and Gentlemen,

Your obedient servant,

FRANK T. MADGE,

Medical Officer of Health.

NATURAL AND SOCIAL CONDITIONS OF THE DISTRICT.

| | | | | |
|--|-----|-----|-----|----------|
| Area of the Rural District in acres | ... | ... | ... | 151,007 |
| Population (Registrar-General's mid-year estimate) | | | | 18,030 |
| Inhabited Houses | ... | ... | ... | 5,551 |
| Rateable Value | ... | ... | ... | £115,178 |
| Product of a Penny Rate | ... | ... | ... | £462 |
| Rate in the Pound levied in 1953-4 | ... | ... | ... | 23s. 6d. |
| Of which the County Rate was | ... | ... | ... | 18s. 3d. |

The Rural District of South Westmorland is a pleasant rolling country-side which rises from sea level in the south to nearly a thousand feet in the north. The shore-line extends for about 14 miles along the estuary of the River Kent, flat and marshy in the north, but with picturesque wooded slopes on the south.

The District is divided into three main valley areas by the two ridges of Scout Scar and Killington, which run north and south across the centre of the southern portion of Westmorland. On the west lie the Winster and Lyth valleys, in the middle lies the valley of the Kent, and on the extreme east lies the Lune Valley.

The dividing ridge of Scout Scar is sharp and barren, but the larger watershed which runs from Hutton Roof in the south to Whinell in the north is rolling upland more suitable for agriculture. In the extreme north of the District is the high barrier of the central massif of Westmorland. These geographical features determine the natural lines of communication and therefore the spread of infectious disease.

The geology of the Rural District is sharply divided by the great fault which runs from Kendal in the north to Burton in the south-west and Kirkby Lonsdale in the south-east after branching near Crooklands. The country to the north-east of this fault consists of Kirkby Moor Flags in the Upper Ludlow Series of the Silurian System, with appreciable deposits of glacial drift. The rocks to the west of the fault are carboniferous limestones, with some of the Yoredale Series in the extreme south. The valleys contain much alluvial deposit and some glacial drift. These geological characteristics are of great significance in the supervision of water supplies, sewerage and occupational disease as well as affecting the economics of the District.

The climate is mild and equable, though invigorating on the uplands. The valleys are sheltered from the prevailing westerly winds, and their southern aspect provides full access to sunshine. Temperature gradient inversions are occasional in spring and autumn but are soon dispelled in

the mornings. The rainfall varies between 40 and 50 inches a year, and light falls of snow may be expected for one or two weeks in the late winter.

The District is mainly agricultural in character and many of the small local industries and crafts are ancillary to agriculture. There are also the following industries which provide much local employment and bring prosperity to the villages.

| | |
|--------------------|----------------------------|
| Paper Mills. | Wood Turning. |
| Woollen Mills. | Stone Quarries. |
| Mat Making. | Tarmacadam Manufacture. |
| Comb Making. | Cardboard Box Manufactory. |
| Milk Depots. | Condensed Milk Factory. |
| Furniture Factory. | Diatomaceous Earthworks. |

In addition to these local industries the District receives seasonal tourist business at Arnsdale, Kirkby Lonsdale, and those northerly parts of the area which lie within the Lake District. The variety of these opportunities for local employment has stopped the drift from the countryside and has kept South Westmorland happily free from unemployment and provided that economic security and local prosperity which is a most important factor in the maintenance of public health.

STAFF.

| Name. | Qualifications. | Office. | Whole or Part Time. | Other Offices. |
|--------------------|---|--|---------------------|--|
| F. T. Madge ... | MD., Ch.B., M.R.C.S., L.R.C.P., D.P.H. | Medical Officer of Health | Part | M.O.H. Combined County Districts of Westmorland |
| G. H. Ball ... | M.R.San.I., M.S.I.A. | Chief Sanitary Inspector and Housing Manager | Part | Building Surveyor |
| D. Shepherd ... | F.S.I.A., F.F.S., M.R.San.I. | Additional Sanitary Inspector | Whole | — |
| W. H. Aldersley... | M.S.I.A. | Additional Sanitary Inspector | Whole | — |
| H. Moss ... | — | Clerk | Whole | — |
| K. A. Beveridge... | — | Clerk | Whole | — |
| B. M. Machell ... | — | Clerk to Medical Officer of Health | Part | Clerk to M.O.H. Combined County Districts of Westmorland |
| W. E. R. Thomas | F.I.A.S., M.R.San.I., A.Inst.W.E. | Water Engineer | Part | Sanitary Engineer |
| P. Hampshire ... | — | Housing Supervisor and Welfare Officer | Whole | — |

STAFF CHANGES.

Mr. D. W. Elwell, pupil, left the Department on 8th January, 1953.

COMMITTEES.

The Minister of Health requires me to include a list of your Council's committees which are concerned with matters of public health.

The Public Health Committee deal with the principal matters, but there are other aspects of public health importance which are dealt with by the Water, and Housing Committee,

VITAL STATISTICS.

The following extracts are made from information supplied by the Registrar-General with figures for 1952 for comparison.

Area of the District in acres 151,007

| | 1952 | 1953 |
|--|--------|--------|
| Estimated civilian population (mid-year) ... | 17,930 | 18,030 |
| Live Births. Legitimate— males ... | 134 | 155 |
| females ... | 126 | 127 |
| Illegitimate— males ... | 6 | 3 |
| females ... | 10 | 6 |
| Total ... | 276 | 291 |
| Crude Rate per 1,000 population ... | 15·4 | 16·1 |
| Corrected Rate per 1,000 live births ... | 17·2 | 18·0 |
| Rate for England and Wales ... | 15·3 | 15·5 |
| Stillbirths. Legitimate— males ... | 2 | 10 |
| females ... | 2 | 4 |
| Illegitimate— males ... | 1 | 1 |
| females ... | — | — |
| Total ... | 5 | 15 |
| Rate per 1,000 (live and still) births ... | 17·8 | 49·01 |
| Rate per 1,000 population ... | 0·27 | 0·83 |
| Rate for England and Wales ... | 0·35 | 0·35 |
| Deaths. males ... | 117 | 102 |
| females ... | 97 | 107 |
| Total ... | 214 | 209 |
| Crude rate per 1,000 population ... | 11·9 | 11·5 |
| Corrected rate per 1,000 population ... | 10·4 | 9·9 |
| Rate for England and Wales ... | 11·3 | 11·4 |
| Infantile Deaths (under 1 year) | | |
| Legitimate ... | 5 | 7 |
| Rate per 1,000 legitimate live births ... | 19·2 | 24·8 |
| Illegitimate ... | 2 | 1 |
| Rate per 1,000 illegitimate live births ... | 125 | 111 |
| Total Deaths under 1 year ... | 7 | 8 |
| Rate per 1,000 live births ... | 25·3 | 27·4 |
| Rate for England and Wales ... | 27·6 | 26·8 |

| | | | | | | | |
|---|-----|-----|-----|-----|--|------|------|
| Neonatal Deaths (under 1 month) | | | | | | | |
| Total neonatal deaths | ... | ... | | | | 6 | 8 |
| Rate per 1,000 live births | ... | ... | | | | 21·7 | 27·4 |
| Deaths from Diarrhoea and Enteritis (under 2 years) | | | | | | | |
| Deaths | ... | ... | ... | ... | | — | — |
| Rate per 1,000 live births | ... | ... | | | | — | — |
| Rate for England and Wales | | | | ... | | 1·1 | 1·1 |
| Maternal Mortality | | | | | | | |
| Total Deaths | ... | ... | ... | ... | | 1 | 1 |
| Rate per 1,000 total (live and still) births | ... | ... | ... | ... | | 3·5 | 3·2 |
| Rate for England and Wales | | | | ... | | 0·72 | 0·76 |

Deaths from certain causes :—

| | 1952 | 1953 |
|----------------|------|------|
| Cancer | 37 | 31 |
| Measles | Nil | Nil |
| Whooping Cough | Nil | Nil |

The main causes of death were :—

| | | | |
|------------------------------------|-----|-----|----|
| Heart Disease | ... | ... | 75 |
| Vascular lesions of nervous system | ... | ... | 37 |
| Cancer | ... | ... | 31 |

COMMENTARY ON VITAL STATISTICS.

The Registrar-General's estimate of your civilian mid-year resident population was 18,030, but the provisional figure for the 1951 Census was 17,774. It is fruitless to discuss the significance of these figures until the full census statistics are available.

Nevertheless the estimate reflects a fairly stable population which has varied very little since your boundaries were revised in 1935. A proper perspective cannot be obtained by considering merely one year's changes. It is the general trend of population which is important for the planning of your future housing, water and sewerage requirements, and for the broader issues of the economic prosperity of your District.

Before the second World War you were a declining community, not only showing less births than deaths, but also drifting steadily each year out of the countryside. For the past eight years you have maintained your population by your own reproduction and I hope this encouraging sign will continue.

I believe that the setting up of a better basis for agriculture in the national economy has checked the drift from the countryside, and has encouraged your young folk to renew their faith in country life by settling down and undertaking the responsibilities of a family.

Birth Rate.

Your birth rate during 1953 was above your death rate. The general trend of recent years has showed a steady increase, so that your rates now exceed the national average.

Still-birth Rate.

Your stillbirth rate was disturbingly high, being over three times the incidence in the preceding two years.

Death Rate.

Your death rate was slightly below that for England and Wales, but I attach no significance to that fact.

Infantile and Neo-natal Deaths.

Infantile deaths are deaths in children under the age of one year, and included in this figure are the neo-natal deaths which are deaths in children under one month of age. This distinction helps to separate the deaths which are due to factors connected with pregnancy, child-birth and abnormal development, which are more likely to cause death within the first month, from the factors connected with infant management which are more likely to cause death between one month and one year.

There were 8 infant deaths in 1953 and all of these were neo-natal deaths. The infantile death rate was very near that for England and Wales. You will remember that in 1910 your rate was 120, during the first decade of this century it varied between 80 and 70, during the twenties it fell to between 60 and 50, and during the last few years it has been between 40 and 20. Your figures are too scanty to carry any great statistical significance, but as the trend runs parallel to that for England and Wales I consider that they reflect a very satisfactory improvement in child-care by the local doctors, nurses, and, above all, by the young mothers in their homes. I hope that this happy state will continue.

The neo-natal deaths contain what we might call the hard core of "unavoidable" infant deaths. Many of these in the past have been due to prematurity, abnormality, or the result of difficult child-birth. It does not appear likely that science will be able to prevent developmental abnormalities, but there are high hopes that blood tests and the increased availability of obstetrical specialists will help to reduce the number of neo-natal deaths.

Maternal Mortality.

There was one maternal death.

PREVALENCE AND CONTROL OF INFECTIOUS AND OTHER DISEASES.

Public Health Act, 1936. Sections 143-170.

National Health Service Act, 1946. Part III.

The first quarter opened with a rather straggling outbreak of measles in Arnside, and a few odd cases of scarlet fever, mostly in the usual place, the Lune Valley. A handful of dysenteries around Kendal were associated with the outbreaks in the Borough.

April saw the real start of measles when Kendal's big epidemic spilled over into the surrounding countryside, so that the next three months reflected the ripples of infection spreading out from Kendal to the Lyth Valley in May, to Burneside in June, and setting up quite sharp outbreaks in Milnthorpe and Kirkby Lonsdale in July. The epidemic faded away towards the end of August.

Whooping cough lingered on in Kirkby Lonsdale and the Lune Valley throughout most of the autumn, but the rest of the District was quiet, unless some patients escaped notification.

One case of infantile paralysis occurred in February in the Lyth Valley and another at the end of November in Staveley. Polio is certainly a dreadful disease, but it is apt to receive more flesh-creeping publicity than its attack rate and usual outcome really warrant. I wish we knew more about how it is carried from one person to another, because then we might be able to stop it.

It is pleasing to record that the notification of infectious diseases has much improved in recent years, and I am very grateful to my colleagues in general practice for their prompt help in this respect. I look upon the control of notifiable diseases as one of the most important duties of our department. Patterns of thought change from time to time on these subjects, but this is how I see them at the end of 1953.

Whooping Cough.

Whooping cough is being brought under control with depressing slowness. Artificial immunisation has been available for well over ten years and has been privately sought for their children by most of the intelligent parents in the country. The delay lies in its recommendation to that section of the community who have come to rely upon centrally inspired propaganda to direct their way of life.

The Medical Research Council cannot yet present a cast-iron case for the efficiency of whooping cough immunisation, and the Ministry of Health have done no more than offer a lead from behind in approving the proposals of some progressive local authorities to start it, and I understand that it is available on request at the County Council clinics. In support of such an obvious precaution I cannot say more than that I immunised my own children.

Although the antibiotic drugs have reduced the complications, whooping cough remains a very lethal illness during the first few months of life, and a very distressing affliction at all ages. I believe that it could be virtually wiped out with a little more popular understanding and a lot more effort.

Measles.

Measles remains a disease which visits the area with periodical regularity. No effective artificial immunisation is yet available, but the use of antibiotic drugs has greatly reduced the incidence of pneumonia and ear disease complications in measles. It is in the first year of life that measles is such a deadly disease, so every effort should be made to keep babies away from infection. At one time "measles tea parties" were popular

NOTIFIABLE DISEASES TABLE.

| DISEASE. | TOTAL. | Ages. | | | | | | | | | | | Admitted to Hospital. | Deaths. | |
|-------------------------------------|--------|-------|----|----|----|----|-----|-----|-----|-----|-----|-----|-----------------------|---------|-----|
| | | -1 | 1- | 2- | 3- | 4- | 5- | 10- | 15- | 20- | 35- | 45- | | | 65- |
| Scarlet Fever ... | 15 | — | — | 1 | 1 | 2 | 9 | 2 | — | — | — | — | — | 7 | — |
| Pneumonia ... | 8 | 1 | — | — | — | — | — | 1 | 1 | — | 1 | 2 | 2 | — | — |
| Erysipelas... | 6 | — | — | — | — | — | — | — | — | — | — | 5 | 1 | — | — |
| Dysentery... | 4 | 1 | — | — | — | — | 1 | — | — | 2 | — | — | — | — | — |
| Puerperal Pyrexia ... | 1 | — | — | — | — | — | — | — | — | 1 | — | — | — | — | — |
| Acute Poliomyelitis (Paralytic) ... | 2 | — | — | — | — | — | 1 | 1 | — | — | — | — | — | 2 | — |
| Measles ... | 316 | 3 | 20 | 21 | 30 | 43 | 175 | 18 | 2 | 3 | — | 1 | — | — | — |
| Whooping Cough ... | 34 | 1 | 4 | 2 | 3 | 6 | 18 | — | — | — | — | — | — | — | — |
| Food Poisoning ... | 1 | — | — | — | — | — | — | — | — | — | — | — | 1 | — | — |
| Total ... | 387 | 6 | 24 | 24 | 34 | 51 | 204 | 22 | 3 | 6 | 1 | 8 | 4 | 9 | — |

as a means of getting a family through the illness all at once, but it was hard on the younger members, and I would say that the longer you can put off having measles, the better will be the chances of complete recovery.

German Measles.

German measles is not notifiable so I do not know how many cases occurred, [REDACTED]

[REDACTED] Expectant mothers who contract german measles during the early part of pregnancy run an added risk of their children being born deaf, so it seems quite a good idea to get over this mild illness during school days, because the odds are that most people catch german measles some time in their lives.

Scarlet Fever.

Scarlet fever has been insignificant for many years and the illness is now normally nursed at home. Its continuance as a separate entity can hardly be justified, for it is merely one manifestation among many of infection with the haemolytic streptococcus organisms. If you happen to be sensitive to the rash-producing side-line of the germ you get branded with the alarming label of scarlet fever, whereas if you are not sensitive you merely excite sympathy with a streptococcal sore throat. Perhaps that is over-simplifying the case, but it remains quite illogical.

Its virulence has diminished dramatically during the present century and we have been spared the havoc it caused in Victorian families. The antibiotic drugs now cut short its progress and prevent its complications. What a striking contrast even with pre-war days, when whole hospital blocks were allocated for scarlet fever cases! Nowadays there is little more than neighbourly recrimination against the patient playing in the street. Let us hope that we are not being over confident about our conquest.

Diphtheria.

Diphtheria has not occurred since 1945. Artificial immunisation appears to have almost abolished diphtheria and I hope that serious epidemics of this deadly disease have been banned for all time. I wish to thank the local doctors and nurses for their efforts to secure artificial immunisation of every baby before the first birthday and the school medical officers for their part.

Just think that before the War we used to keep an infectious diseases hospital in this County almost exclusively for diphtheria and scarlet fever,

Now those buildings are put to better use. But it is no use patting ourselves on the back and relaxing into complacency. We must continue to press on with the immunisation of our children or the bogey man of diphtheria will soon poke his head round the nursery door.

Dysentery.

Notifications of the Sonne type of bacillary dysentery have increased in recent years. This is probably because extended laboratory services have facilitated more accurate diagnosis of the group of diseases which are characterised by diarrhoea and a more precise label now replaces those polite chills on the liver and the more colourful service descriptions of the periodical upsets which from time immemorial have swept through home and village and town.

It is no particular credit to note that Sonne dysentery has been prevalent in the North of England for several years, so we probably harbour a number of symptomless excretors of the germs. The cure lies somewhere between the toilet and the table—it lies in your own hands.

Food Poisoning.

What I said about dysentery applies also to food poisoning, but it goes a lot further. Nose picking, nail biting and thumb sucking may be comforting outlets for emotional tension, but they are outlets also for putting poisonous germs into food. Likewise, boils and septic cuts and impetigo are all best kept separate from those foods which invite the germs to multiply in their warm, moist nourishment. We have not had to look far to see what happens when that occurs. There is far more to the problem when that occurs. There is far more to the problem than just eating a peck of dirt before you die, and the lessons of food hygiene apply as much to the housewife as they do to the shop-keeper.

Smallpox.

I believe that we are sitting on a volcano. Unless we smarten up our ideas about smallpox the generation of Second Elizabethans may risk looking nearly as pock-marked as the First. Even our Asiatic contemporaries bear pitted testimony to the fact that it needs more than faith to ward off smallpox, and it is from such Eastern bazaars that the virus can come with the returning traveller and his gee-gaw gifts in the space of mere hours. The enthusiasm for airborne travel is matched only by the apathy towards vaccination of those who only England know. The soil is ready for the seed, and what a dreadful harvest will be reaped some day.

Smallpox swept this countryside from time to time until some 50 years ago, when widespread vaccination checked its progress and vigilance at the sea ports prevented its importation. A generation has grown up which is blinded by the complacency of false security, not yet realising that air travel has made smallpox once more a very real risk to the community.

Persons from abroad, who may be incubating the disease, arrive in this country well within the incubation period. It is most important that all children should be vaccinated in infancy, and that adults should keep themselves protected, rather than rush in belated panic for mass vaccination when an outbreak occurs.

The present low vaccination state of the population is inviting trouble from this disfiguring and often fatal disease. I cannot stress too strongly the wisdom of taking obvious precautions against preventable diseases.

Hospital and Ambulance Arrangements for Infectious Diseases.

National Health Service Act, 1946. Parts II and III.

Hospital accommodation for infectious diseases is provided by the Regional Hospital Board, Manchester, at Beaumont Hospital, Lancaster, a modern and well-equipped building, within easy reach of this area under modern transport conditions.

Smallpox cases will be admitted to the Ainsworth Smallpox Hospital near Bury.

Ambulance transport for cases of infectious diseases is provided by the Westmorland County Council and is based in Kendal.

Disinfection Arrangements.

Steam disinfection of suitable articles has been situated in the Borough of Kendal. In the more scattered parts of the District reliance has to be placed upon disinfection with formaldehyde.

TUBERCULOSIS.

Tuberculosis is the most important communicable disease of our time. Its prevention is primarily dependent upon social and economic factors in the general community, and secondarily upon the management of the established case. Your Council's functions are threefold : to investigate the source of infection, to prevent the spread of infection, and to remove conditions favourable to infection.

Investigation of the source of infection relies upon notification. Inquiries are made into the home and working conditions of the patient and into any outside possible sources of infection. Additional assistance is provided by the mass miniature radiography units of the Regional Hospital Boards, which offer free X-ray examination in each locality from time to time, and not only reveal the infectious cases but enable early cases to be offered the best possible chances of recovery. I wish that the Unit could come more often.

Preventing the spread of infection depends mainly upon the management of the established case. Ideally, the infectious patient should be isolated, but the serious shortage of beds and nurses in sanatoria causes many cases to remain outside. This is usually to the detriment of the patient and it creates a very serious reservoir of infection leaking into the general population.

If isolation in hospital is denied, reliance has to be placed on education of the patient in personal precautions, and your Council endeavour to ensure that the home conditions are such that an infectious patient is not compelled to share a bedroom with other members of the family who are still healthy, and where possible to rehouse young families who are sharing a house with infectious tuberculosis patients—rather an inadequate and pathetic makeshift.

Prevention of tuberculosis extends beyond the home. Your Council have the duty of ensuring that an infectious patient is not employed in dairying or food handling, and persuasion is occasionally needed to avoid the undesirability of such a patient carrying on certain other employment which would create an especial risk to susceptible contacts. In many other workplaces control is impotent and spread may be unchecked. Perhaps immunisation with B.C.G. vaccine may protect susceptibles.

Removing conditions favourable to infection embraces the whole range of environmental preventive medicine. Housing and nutrition are probably the major factors. Slum clearance, reconditioning of houses, relief of overcrowding are the first steps, for tuberculosis thrives in damp, dark congested dwellings, whether they may be sited in an urban slum or rural solitude. Nutrition is undoubtedly significant in the prevention of

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infection and in the early arrest of tuberculosis. Protective foods are expensive to buy, medical treatment is free.

The increase in attested herds, the eradication of tuberculous cattle, and systematic meat inspection are making suitable progress in removing conditions favourable for bovine infection to be transmitted to man.

The supervision of dusty trades under the Factories Act reduces the risk of lung damage which may predispose to tuberculous infection, and the workers in these occupations are especially surveyed by the X-ray units.

Your Council have therefore very considerable responsibilities in accepting the challenge of tuberculosis.

TUBERCULOSIS TABLE.

| Age Periods. | NEW CASES. | | | | DEATHS. | | | |
|-----------------|--------------|----|------------------|----|--------------|----|------------------|----|
| | Respiratory. | | Non-Respiratory. | | Respiratory. | | Non-Respiratory. | |
| | M. | F. | M. | F. | M. | F. | M. | F. |
| 0 | — | — | — | — | — | — | — | — |
| 1 | — | — | 1 | 1 | — | — | — | 1 |
| 5 | 1 | 1 | 2 | 2 | — | — | — | — |
| 15 | 3 | — | — | — | — | — | — | — |
| 25 | 6 | — | — | — | — | — | — | — |
| 35 | 1 | — | — | — | — | — | — | — |
| 45 | — | 1 | — | — | — | — | — | — |
| 55 | 1 | — | — | — | 1 | — | — | — |
| 65 | 1 | — | — | — | — | — | — | — |
| Total ... | 13 | 2 | 3 | 3 | 1 | — | — | 1 |

Three of the cases notified were transfers from other areas.

The numbers of tuberculous patients at the year end were :—

| | | | | | |
|-----------------|-----|-----|-----|-----|----|
| Respiratory ... | ... | ... | ... | ... | 54 |
| Non-respiratory | ... | ... | ... | ... | 19 |
| | | | | | — |
| | | | | | 73 |
| | | | | | — |

HOUSING.

The Housing Acts, 1936 and 1949.

Under the Housing Acts your Council has a duty to consider the general housing conditions in your district, to ascertain whether any are unfit for human habitation, and to assess the need for further houses. You have powers to deal with unfit houses, powers to provide new houses for all classes, and various powers and duties in the management of your Council's estates. Good housing conditions are an integral part of public health.

Present Housing Position.

Housing Act, 1936. Section 57.

There were 551 inhabited houses on your Rate Book at the end of the year. With an estimated population of 18,030 the average number of persons per house is 3·2, which is not a high figure. There were no cases of legal overcrowding within the strict definition of the Housing Act, which assumes that living rooms are used for sleeping purposes and that sexes can be segregated irrespective of age, health or family relationships. Assessment of overcrowding based on a minimum bedroom standard is long overdue and would provide a more realistic picture of the domestic difficulties which are reflected in the application lists for new houses.

The great majority of cottage houses and farm-houses are of considerable age and are stone built. Many of the older houses suffer from rising dampness due to the absence of damp-proof courses which cannot be remedied without extensive works in under-pinning. The sound methods of the original construction have ensured that deterioration of the structure is a very slow process, but heavy repair costs and low rentals have made housing repairs unprofitable.

Your Rural Housing Survey set out the details of your houses and showed that in those parishes where public services are available most of the houses are provided with modern amenities. Elsewhere they are lacking, but there are signs of steady improvement.

General Progress of Slum Clearance and Improvements.

Westmorland as a whole has made very encouraging progress in post-war slum clearance despite all the difficulties of the times. Since the campaign was resumed in 1948 well over 300 houses in the County have been dealt with by formal action under the Housing Acts. Most of these will eventually be demolished or converted to trade use, but about 15 per cent. of them have been reprieved by their owners undertaking to spend considerable money for comprehensive reconditioning up to modern

standards. In addition to those formal actions there have been a very creditable number of informal schemes for the renovation of sub-standard houses, either with the aid of improvement grants or entirely by private enterprise. The aim is to save a house wherever possible, but if it cannot be brought up to an acceptable standard of safety, decency and amenity, the sooner it is swept away the better.

In your own District very good progress has been made in slum clearance, over a hundred actions have been successful, and I feel that we have broken the back of the problem in this area.

Rural slums may be more picturesque than city slums, escape into the beautiful countryside may be easier, but within the four walls of a house the distinction is not so evident. The natural decay of houses is inevitable, the demand for the decencies of modern amenities is pressing. A policy of constant replacement has always obtained, otherwise we would still be living in mud and wattle huts.

If the process of natural decay is not allowed to go too far there are often opportunities for reconditioning to modern standards. The Housing Act, 1949, offers considerable financial aid to owners for reconditioning houses. I hope that full advantage will be taken of these opportunities so that houses will not be unnecessarily lost and the architectural traditions of the district may be maintained.

Since 1950 when grants became available, 36 applications have been approved, 19 of these during the current year.

Closing Orders.

Housing Act, 1936. Section 12.

Local Government Act, 1953. Section 10.

Two Closing Orders were made during the year. There were 17 Closing Orders in force at the year end, and included in this figure were eight Orders which have not yet been complied with and are still in occupation.

Undertakings not to use for Human Habitation

Housing Act, 1936. Section 11.

Four formal undertakings were accepted by your Council during the year. At the year end the number of such undertakings in force was 35, and 13 of these houses were still occupied.

Undertakings to perform Works.

Housing Act, 1936. Section 72.

Two undertakings were offered during the year, and the number outstanding at the end of the year was six.

Demolition Orders.

Housing Act, 1936. Section 25.

Nine Demolition Orders were made during the year, and at the year end the number of outstanding orders was 27. Your Council won their case in the County Court after a very protracted hearing of the appeal of the owners of No. 4 Bridge End Cottages, Levens, against a demolition order. Part of the same block fell down during the hearing and the other end became dangerously cracked.

Clearance Areas.

Housing Act, 1936. Section 25.

No confirmed clearance areas are outstanding from earlier years. During 1952 I made Official Representations against two areas of sub-standard property in Staveley. One area included the six cottages in Alec Row and the other was composed of two houses in The Square. Your Council decided to proceed by compulsory purchase orders and after a Public Inquiry in 1953 the Minister confirmed the Order. Conveyance was in progress at the year end.

Actions Pending.

Five further Official Representations were under your Council's consideration at the year end.

Estimated Requirement for New Houses.

Housing Act, 1936. Section 71.

You will remember that your post-war demand was estimated to be about 1,100, made up of about 350 condemned and condemnable houses and about 570 needed for agricultural workers, and for the provision of a house for each family unit.

By the end of 1953 nearly 700 houses had been built by the combined effort of your Council and private enterprise, and a further 94 were under construction. Your Council either have or are getting land for a further 92 houses, and no doubt private enterprise will expand with the relaxation of controls.

It seems reasonable to expect that the post-war houses will total 1,000 by 1956 and perhaps it is getting time to take stock of the situation as by then the original housing needs should have been substantially met. It is not as easy as that to estimate future requirements because the picture is complicated by overspill from Kendal and by migration. Your immigration figures show how labour follows the houses and scope for expansion is largely in your own hands,

One need is certain and constant, the replacement of sub-standard houses. For the purpose of practical policy your Council accepted in 1951 a figure of 120 condemned and condemnable houses from which the tenants could be rehoused during the ensuing five years and which would form the basis of slum clearance action. I hope that this target will be reached.

The agricultural demand presents peculiar difficulties. The difficulties of labour in the farmhouses are hardening farmers' wives against the workers living in and the shortages of cottages discourages married men. The policy of siting workers' houses in existing villages may be satisfactory in arable farming areas, but it leads to working difficulties on stock farms where it is desirable for the men to be near their work. Your Council has requested the County Agricultural Executive Committee and the National Farmers' Union to furnish evidence of need in any particular locality as it may occur.

Housing Building Progress.

In 1948 your Council formulated a policy to build between 400 and 500 houses before the end of 1952, and the balance not covered by private enterprise in a subsequent five-year period. You completed 442 houses in the first period, plus another 160 by private enterprise.

That progress has continued, so that at the end of the current year you had completed 494, with another 76 under construction. Private enterprise had then reached 190 completed and 18 under construction.

Your Council purchased eight houses, Nos. 17-24 Gatebeck, in order to recondition them. The scheme was approved by the Minister and was in progress at the year end.

During the year 11 additional housing units were provided by the conversion of existing buildings.

Selection of Tenants.

Selection of tenants for Council houses is done on a points basis. Briefly, the system consists of a single initial application form used for filing and reference : when houses in the district in which the applicant requires accommodation are nearing completion a further form is sent requiring extensive information. After seven or fourteen days the Housing Manager visits each applicant, the relevant facts are checked, he then makes the points award form. When all applicants have been visited a Sub-Committee consisting of the Chairman and Vice-Chairman of the Housing Committee, the local representatives and a representative

of the agricultural interests meet, the applications are then considered on a points basis, no names being disclosed. The system appears to work reasonably satisfactorily.

Housing Management.

Your Council owned 554 occupied houses at the year end, and housing management in the District is under the control of the Chief Sanitary Inspector and Building Surveyor, an arrangement which, in my opinion, is most satisfactory ; it ensures that unsatisfactorily housed persons, who are either in sub-standard dwellings or grossly over-crowded are given due consideration and not overlooked. The arrangement also permits the technical officer most concerned having control of repairs and ensures that the property is well maintained. A modest start was made in providing direct labour for maintenance. Some of your Council's staff have been engaged on repairs, bricklaying, masonry, plastering and slating. The open spaces on your Housing Estates are difficult to maintain with the present staff and you may need to provide more help in the future. The rents of your Council houses vary from 9s. 9d. to 17s. 3d. per week, exclusive of rates, and the rateable values are between £10 and £20.

The examination of rentals and rates may not seem at first to have much to do with public health, but it does have considerable significance. It is not unknown for persons who have been rehoused from poor quarters into modern Council houses to have to pay their rent and rates from the portion of their income which rightly belongs to the purchase of food. Domestic economy can effect the general standard of the public health almost as much as environmental conditions, and some attempt must be made to maintain a balance between these conflicting factors.

Verminous Houses.

Public Health Act, 1936. Sections 83-85.

One case required action during the year.

Nuisances and Notices.

Public Health Act, 1936. Sections 91-100.

On the 1st January, 1953, there were 87 Informal Notices outstanding. During 1953 Informal Notices served numbered 76. The number of Informal Notices completed during the year was 83, leaving outstanding on 31st December, 1953, a total of 80,

Statutory Notices outstanding on 1st January, 1953, numbered four, seven were completed during the year, and five were served, leaving a balance of two at 31st December, 1953.

In no case was it necessary to obtain an Abatement Notice from the Court.

Dangerous Buildings.

Public Health Act, 1936. Section 58.

Action was taken during the year in one case, which did not necessitate Court action.

Tents, Vans, Sheds and Moveable Dwellings.

Public Health Act, 1936. Sections 268-269.

There are seven licensed camping sites in the Rural District, comprising three at Arnside, one at Storth, one at Levens, one at Hazelslack, and one at Barker Knott.

Unlicensed camping sites are scattered throughout the area, but very little nuisance arises from casual campers' improvised sanitary arrangements and refuse disposal. Water is taken from polluted becks at their own risk.

As this District is in or on the fringe of the National Park it is most desirable that strict but unobtrusive supervision should be exercised over camping sites, to ensure that the natural beauty of the country is not despoiled by the careless few.

Individual caravans licensed at the commencement of the year numbered 25. During the year 11 new licences were granted and 12 were withdrawn, leaving a total of 24 at the year end.

Caravans, sheds and other immobilised vehicles are difficult to supervise, and if undetected they constitute an undesirable precedent for the indiscriminate and unauthorised erection of shacks which are not in keeping with the amenities of the District and which seriously aggravate the sanitary administration. An attempt is being made to make licences reconcile with planning approval.

WATER SUPPLIES.

The water supply to your District is derived from many sources. The principal source of public supply is from your Lupton reservoirs, the mains from which extend into 19 parishes in the southern part of your area.

Your Council control and maintain other sources of supply in a further ten parishes. The Thirlmere Aqueduct of Manchester Corporation passes through your District, and connected to it are some houses in the ten parishes along its route. In two parishes some of the houses draw supplies from the mains of Kendal Corporation.

The principal supply of three parishes and a supplementary supply in one parish are owned by commercial undertakings. A considerable portion of your District is dependent upon private supplies from wells, adits, springs, stored rain water or small watercourses. No public nor organised private supply whatever is available in 13 parishes.

It must not be assumed that the supplies to all the above parishes are adequate. In a number of parishes very few houses are actually supplied from the sources named. The Rural Housing Survey, completed in June, 1946, detailed the number of houses served in each parish, and at present I estimate that only about 64 per cent. of all the houses in your District have a public supply laid on to the house. Private supplies laid on amount to another 26 per cent., leaving about 10 per cent. of houses to which water has to be carried.

Special measures were maintained to safeguard the purity of the public supplies.

The quality of the public water supplies is generally good. The laboratory results of examinations and analyses of the ten public supplies are set out in Appendix "A." I have no official knowledge of the quality of the myriad of private supplies, and I suspect that many of them are unsatisfactory in quality and very variable in quantity. I can do no more than warn the users that they drink it at their own risk, that they should have it tested for purity at regular intervals and if in doubt, they should boil it.

The following is a brief review of your Council's public water supplies.

Lupton Supply.

The parishes supplied are Arnside, Beetham, Crosthwaite, Natland, Witherslack, Heversham, Preston Patrick, Preston Richard, Sedgwick, Stainton, Hincaster, Holme, Hutton Roof, Levens, Lupton, Meathop, Milnthorpe, Helsington and Underbarrow.

The supply is upland surface water impounded into two reservoirs. Bakrin House reservoir has a capacity of 8 million gallons and a top water level of 630 feet O.D. The catchment area is open fell land. 332 acres, of which 104 acres are owned by your Council. The average rainfall over 14 years was 46.6 inches, and that of the three driest years 31.6 inches. Compensation water of 34,000 gallons per day has to be supplied.

PUBLIC WATER SUPPLY DISTRIBUTION

YEAR ENDED 31ST DECEMBER, 1953

| Parish | Houses | Public Supply | | Organised Private Supply | | Other Private Supply | |
|------------------------|--------|---------------|-------------|--------------------------|-------------|----------------------|-------------|
| | | Laid on | Not Laid on | Laid on | Not Laid on | Laid on | Not Laid on |
| Arnside ... | 446 | 439 | — | — | — | — | 7 |
| Barbon ... | 85 | 63 | — | — | — | 18 | 4 |
| Beetham ... | 338 | 312 | — | — | — | 4 | 22 |
| Burton ... | 221 | 215 | 5 | — | — | 1 | — |
| Casterton ... | 73 | 58 | 4 | — | — | 11 | — |
| Crook ... | 110 | — | — | — | — | 87 | 23 |
| Crosthwaite ... | 165 | 58 | 1 | — | — | 68 | 38 |
| Dalton ... | 25 | 19 | — | — | — | 5 | 1 |
| Dillicar ... | 25 | — | — | — | — | 12 | 13 |
| Docker ... | 13 | — | — | — | — | 10 | 3 |
| Fawcett Forest ... | 13 | — | — | — | — | 11 | 2 |
| Firbank ... | 34 | — | — | — | — | 24 | 10 |
| Grayrigg ... | 53 | 29 | — | — | — | 13 | 11 |
| Helsington ... | 61 | 9 | — | — | — | 39 | 13 |
| Heversham ... | 139 | 137 | 1 | — | — | — | 1 |
| Hincaster ... | 35 | 30 | — | — | — | 4 | 1 |
| Holme ... | 211 | 205 | 6 | — | — | — | — |
| Hugill ... | 130 | 92 | — | — | — | 32 | 6 |
| Hutton Roof ... | 60 | 31 | 5 | — | — | 14 | 10 |
| Kentmere ... | 39 | — | — | — | — | 30 | 9 |
| Killington ... | 42 | — | — | — | — | 37 | 5 |
| Kirkby Lonsdale ... | 457 | 395 | 1 | — | — | 53 | 8 |
| Lambrigg ... | 30 | — | — | — | — | 21 | 9 |
| Levens ... | 294 | 258 | 13 | — | — | 6 | 17 |
| Longsleddale ... | 28 | — | — | — | — | 26 | 2 |
| Lupton ... | 56 | 38 | 3 | — | — | 14 | 1 |
| Mansergh ... | 41 | — | — | — | — | 35 | 6 |
| Meathop ... | 41 | 40 | — | — | — | 1 | — |
| Middleton ... | 44 | — | — | — | — | 36 | 8 |
| Milnthorpe ... | 463 | 442 | 21 | — | — | — | — |
| Natland ... | 90 | 78 | — | — | — | 11 | 1 |
| Nether Staveley ... | 147 | 110 | 6 | — | — | 26 | 5 |
| New Hutton ... | 58 | 4 | — | — | — | 45 | 9 |
| Old Hutton ... | 82 | 45 | — | — | — | 35 | 2 |
| Over Staveley ... | 189 | 138 | 26 | — | — | 21 | 4 |
| Patton ... | 15 | — | — | — | — | 9 | 6 |
| Preston Patrick ... | 121 | 89 | — | — | — | 28 | 4 |
| Preston Richard ... | 181 | 160 | 8 | — | — | 12 | 1 |
| Scalthrowerigg ... | 38 | — | — | 26 | — | 6 | 6 |
| Sedgwick ... | 51 | 29 | 18 | — | — | 4 | — |
| Skelsmergh ... | 78 | 34 | — | 7 | — | 28 | 9 |
| Stainton ... | 100 | 76 | — | — | — | 15 | 9 |
| Strickland Ketel ... | 268 | 4 | — | 202 | 3 | 25 | 34 |
| Strickland Roger ... | 93 | 3 | — | 59 | 4 | 22 | 5 |
| Underbarrow ... | 89 | 11 | — | — | — | 60 | 18 |
| Whitfell ... | 23 | — | — | — | — | 16 | 7 |
| Whitwell & Selside ... | 44 | 7 | — | — | — | 28 | 9 |
| Witherslack ... | 132 | 56 | — | — | — | 56 | 20 |
| TOTALS ... | 5,571 | 3,714 | 118 | 294 | 7 | 1,059 | 379 |

The other reservoir is at Tarnhouse, with an available capacity of 22 million out of 30 million gallons, and a tap water level of 590 feet O.D. The catchment area is open fell land and some arable land, 217 acres, none of which is owned by your Council. The rainfall is the same as for Barkin House.

These waters are mixed and filtered through Bell's pressure filters, and are chlorinated before distribution into the mains system. The reservoir is used for fishing under your Council's licence. The quality of the treated water is good.

Staveley Supply.

The parishes are Hugill, Nether Staveley, and Over Staveley. The source is spring water from a disused mine-working in the Kentmere valley. The water gravitates to an adit and is collected at 532 feet O.D. The water is untreated and is good in quality.

Kirkby Lonsdale Supply.

The source is from a water-bearing gravel bed at Fleet. The depth of the collecting chambers is about nine feet with a top water level of 330 feet O.D. The gathering ground is not defined but is estimated to be at least 261 acres, of which your Council own one acre. The quantity of the supply has been abundant for some 70 years and the quality has been good except for plumbosolvent tendencies. The water passes untreated to the consumers.

Casterton Supply.

The source is from springs of 480 feet O.D. and from surface waters. The quality is indifferent and there are occasional outbreaks of diarrhoea among the consumers following heavy rain. The surface water component of this supply is undesirable drainage from pasture land and is used only when the yield of the springs fall below the demand. Chlorination was installed in 1952 and has improved the safety of this supply, but the whole system is a poor one and ought to be replaced by a safer and more constant source of supply. Perhaps the Haweswater aqueduct will meet the need.

Barbon Supply.

The source is from springs at 450 feet O.D. The quality is intermittently bad and the water is untreated. I made a detailed investigation of the supply, and recommended improvements to your Council for piping the fell runners near the road and this work was completed during 1951, but it can only be a partial remedy for a supply which is intrinsically poor and which ought to be replaced by a safer source. It may be that the

proposed Haweswater aqueduct could solve your Council's difficulties with the Barbon, Casterton and Kearstwick supplies, all of which I regard with misgivings. In the meantime I advise chlorination.

Grayrigg Supply.

The source is partly from a small spring and partly from upland surface water from uninhabited fell grazing ground, some 57 acres in extent, none of which is owned by your Council. The water is collected in a small tank with a top water level of 670 feet O.D. and is untreated.

Just at the end of 1950 your Council altered the headworks to ensure that the supply was derived only from the small limestone spring, because fell drainage operations seemed to have aggravated the long-standing trouble of heavy sediment after rains.

After this work the appearance of the water showed great improvement, although it was considerably harder. In 1952, however, it was found that the lead in solution was 0.8 parts per million, which is about eight times the safe level. This seemed to be due to a vein of soluble lead in the limestone source, and in time it might have caused chronic lead poisoning.

The spring was therefore disconnected from the supply until an alternative satisfactory permanent scheme can be evolved.

Burneside Supply.

This private commercial supply has its sources in upland surface gathering ground on Potter Fell. The quality of the water at the last test was good. The water is untreated.

Kearstwick Supply.

This private supply derives from Terrybank Farm and gave trouble during 1951. The owners took prompt remedial action to extend the intake above the source of pollution and small chlorination plants are operated at two points on the system.

A more permanent reconstruction of this system is under consideration for grant aid by the Ministry of Agriculture and Fisheries, following your Council's decision not to take it over in its present state. A future supply from the Haweswater aqueduct is envisaged.

Garth Row Supply.

This small scheme is upland surface water which was poor in quality. A large storage tank was constructed in 1948. It is proposed to take an alternative supply from the Haweswater aqueduct when available.

Garnett Bridge.

This small scheme is connected to the Thirlmere aqueduct and the water was good in quality at the last test.

General.

Those supplies which show poor or indifferent bacteriological results are in the main due to the upland gathering grounds being grazed by stock, with the consequent manurial contamination of the water after rainfall. The bacterial counts fluctuate widely according to the climatic conditions and as most of your public waters are untreated the contamination tends to be a nuisance in laboratory control rather than any particular danger to the consumers. Certain sources, however, require constant supervision against possible human pollution.

Proposed Future Water Schemes.

Additional Headworks.

Your Council consider that increased storage and catchment are required for the future expansion of the Lupton Scheme, and a Scheme for raising the dam at your Tarnhouse reservoir was examined at a Ministry Inquiry held during 1952. The Minister however favoured securing additional supplies from the Thirlmere aqueduct and a further programme of waste reduction.

Lyth Valley Scheme.

Your Council extended the Lupton Supply to the Lyth Valley area, including Witherslack, Howe, Row, Underbarrow and Brigsteer. This scheme was commenced in 1949 and the last length at Brigsteer was completed in 1953.

Crook.

An outline scheme for a small public water supply for a group of 35 houses in Crook was prepared and submitted to the Ministry of Health during 1950, but no real progress was made since, and it seems that the scheme is now moribund.

Helsington.

A scheme for the extension of your Lupton system from Natland to Helsington Parish, near Prizet, was prepared for the purpose of supplying six farms and several private houses. This scheme was submitted to the Ministry of Health in 1950, approval in principle was granted in 1952, and the first stage from Natland to Crow Park has been completed and tenders are being sought for the remainder of the Scheme.

SEWERAGE.

Public Health Act, 1936. Section 14.

The general position is not very satisfactory. Public sewers and disposal works exist only in the more populous parts of twelve parishes, and in three other parishes there are systems installed by commercial undertakings. The rest of your District relies upon individual septic tanks, cesspools or drainage into watercourse, or still retains the more primitive practices associated with privies, privy middens, pails and earth closets. This position is due to the lack or late installation of the public water supplies in these areas.

Your Council are fully aware of these deficiencies and are planning considerable extensions of the public sewerage system, and are improving, or replacing some of the existing disposal works which have become obsolete or inadequate for present and future requirements. Many areas will still have to await the public water supply before their insanitary conditions can be properly remedied.

Even when the public water supply arrives it will not be economically practicable to install comprehensive sewerage and full treatment sewage disposal plants, and the smaller villages or hamlets can be fairly well served by group septic tanks where the soil is suitable for irrigation with the effluent. Isolated houses must perforce rely upon this method of drainage.

Disposal Methods and Works.

Public Health Act, 1936. Section 15.

Arnside.

This plant consists of a tank on the shore fed by a sewer with a very poor fall, and embarrassed by tidal action. The effluent is discharged into the estuary and is often not of a very high standard. The whole of Morecambe Bay is, however, so grossly polluted with sewage that your contribution, although undesirable, is negligible in quantity. The sludge is pumped up to an old quarry at New Barns, where there are obsolete and inefficient so-called drying beds. I do not like the Arnside arrangements and I would recommend that alternative arrangements should be adopted for sludge drying and disposal.

Staveley.

This is a modern plant situated near Hundhow on the Back Road to Burneside. It consists of detritus tanks, sedimentation tanks, rotary percolating filters, humus tanks, and storm water tanks, with suitable

sludge drying beds. The effluent passes into the adjacent River Kent and is usually of good quality. I am satisfied that these works are capable of producing good results and are adequate for the anticipated growth of the area.

Kirkby Lonsdale.

These works are situated on the Whittington Road near Robrairie. The design is old-fashioned, and the results appear to be variable. There are detritus tanks, sedimentation tanks, and percolating filter beds from fixed sprinklers, storm water tanks, and sludge drying beds. The effluent passes into the adjacent River Lune. This plant is decaying and I think it will be inadequate to deal with the new housing development in a few years. The Council are preparing plans for the reconstruction of the works. Some improvements were made during 1952 and 1953 but it is difficult to do more than patch up an aged plant.

Milnthorpe.

The new disposal works were brought into use during 1952 and are working well on the whole.

Other Works.

The other sewage disposal works are small installations at :—

| | | |
|-----------------|-----|--------------------------------|
| Sedgwick ... | ... | Riverside, Sedgwick. |
| Heversham ... | ... | Marsh Lane, Heversham. |
| Endmoor ... | ... | Challon Hall, Preston Richard. |
| Casterton ... | ... | Kirfitt Hall, Casterton. |
| Burton ... | ... | Ley Pitts, Burton. |
| Holme ... | ... | Mill Lane, Holme. |
| Holme Mills ... | ... | One small tank scheme. |
| Levens ... | ... | Three small tank schemes. |
| Storth ... | ... | One small tank scheme. |
| Hutton Roof ... | ... | One small tank scheme. |
| Whassett ... | ... | One small tank scheme. |
| Mealbank ... | ... | One small private scheme. |
| Burneside ... | ... | One small private scheme. |

Some of these work fairly well, some require improvements and renovation and some are obsolete.

Proposed New Sewerage Schemes.

Levens.

The scheme for this village has been sent to the Ministry, but its high cost seems hardly justifiable at present. The Westmorland County

Council refused during 1951 to approve the scheme for grant aid, so an alternative cheaper scheme in outline was submitted to the Ministry although there seems to be no general desire to press the matter as long as the present overloaded tanks cope with the sewage. Someday the problem will have to be faced, but in the meantime small sewer extensions have been made.

Crooklands.

A scheme is in course of preparation.

Burneside.

The scheme for taking the sewage into the system was approved by the Minister of Housing and Local Government in 1953 and work was commenced shortly before the end of the year.

Bowston.

Your Engineer submitted his plans for a small sewerage system at Bowston and your Council resolved to proceed with the Scheme. It was under consideration by the Minister at the year end.

Beetham.

A small disposal works to serve the village was approved by the Ministry of Housing and Local Government. No approval to start has yet been received. Meanwhile crude sewage is discharged into the Bela.

Natland.

Your Council decided during 1951 to install a sewerage system in Natland and instructed the Engineer to submit a scheme. This was in course of preparation at the year end.

Holme Mills.

The present tank is quite obsolete and cannot be economically operated without causing nuisance, so your Council propose to pump the sewage from this area into the Holme system. A scheme is in course of preparation.

Storth.

A sudden diversion of the main channel of the River Kent during 1953 left the outfall of the Storth sewer high and dry on the foreshore, causing considerable nuisance by forming an area of foul smelling quicksand, and draining towards a portion of the saltings at Carr Bank, much frequented by picnickers and children.

Conditions on the foreshore are constantly changing, and at the year end the nuisance was more localised near St. John's Cross, but the main channel remained on the far side of the estuary. Warning notices were erected, and the Council are seeking the consent of the Ministry of Housing and Local Government to connect Storth with the sewage disposal works at Milnthorpe.

Cesspool Emptying.

Increased use was made of this service by private individuals, and the Council were saved many difficulties by having the cesspool emptying vehicle, with a mechanical pump, to deal with the sewage plants on their Housing Estates.

Small Schemes.

In such a scattered rural area the extension of many township and village systems would be impracticable, and therefore some small schemes will be needed to serve hamlets and small villages when water supplies are installed.

Prevalence of Water Closets and other Methods.

Four-fifths of your houses have water closets, but the other fifth comprises about a thousand houses with more primitive arrangements. There are still over 200 privy middens in your District. The details of the various types of sanitary fittings in each parish were set out in Table IV of my 1947 Report. From this list it was easy to see that considerable work lies ahead in cleaning up the District, and that the worst areas are those which are awaiting the arrival of the public water supplies.

Improvements achieved during 1952.

| | | |
|---|--------|----|
| Privy closets and middens abolished and W.C.'s provided | ... | 29 |
| Privy closets and middens abolished and pails provided | ... | 1 |
| Pail closets abolished and W.C.'s provided | ... .. | 23 |
| New drainage systems installed to existing houses | ... .. | 43 |
| New septic tanks installed | ... .. | 32 |
| Overflowing tanks remedied | ... .. | 16 |
| Choked and defective drainage systems remedied | ... .. | 25 |

Notices served re Sanitary Accommodation and Drainage.

| | | |
|--------------------------------------|--------|----|
| Insanitary privies and privy middens | ... .. | 34 |
| Defective sanitary pails | ... .. | 11 |
| Insufficient drainage systems | ... .. | 45 |

Public Conveniences.

Public Health Act, 1936. Section 87.

Public conveniences are maintained in Arnside, Milnthorpe, Staveley and Kirkby Lonsdale. In all the conveniences constant supervision is required to deal with the public misuse to which they are subjected. It is a curious trend in public morals for toilets to be so defiled with careless excretion, obscene and perverted mural decorations, and so often damaged by wanton destruction of the actual fittings.

Conveniences are needed in all the populous villages, particularly to deal with the increasing motor coach traffic. The systematic defiling of our village back streets and yards continues mainly because the visitors are offered no alternative. The present time is not opportune for embarking upon any extensive scheme of public lavatories, but I regard their ultimate provision as a much needed public health measure rather than a source of income to your Council.

The Staveley convenience was constructed during 1949 and is incorporated in a bus shelter and this pattern could be followed to great advantage elsewhere.

PUBLIC CLEANSING.

Refuse Collection.

Public Health Act, 1936. Section 72.

Refuse collection is undertaken by the Council in the following parishes :—Arnside, Barbon, Beetham, Burton, Dillicar, Casterton, Crosthwaite and Lyth, Helsington, Heversham, Hincaster, Holme, Hugill, Levens, Milnthorpe, Natland, Nether Staveley, New Hutton, Old Hutton, Over Staveley, Kirkby Lonsdale, Preston Patrick, Preston Richard, Lupton, Scalthwaiterigg, Grayrigg, Meathop, Dalton, Hutton Roof, Selside and Mansergh. The service covers all the more populated parts of the Council's area. With the exception of Dillicar the work is carried out by direct labour with the Council's own vehicles. Private collection and disposal services are provided for the two parishes of Strickland Ketel and Roger, but these will be assumed by the Council in 1954.

During the year the service was improved by a new vehicle of the compressor type, with a capacity of 25 cubic yards, being substituted for a lorry of only half that size, thus saving travelling time and increasing efficiency. The number of houses being served increases each year and the arrangements need constant review.

Refuse Disposal.

Public Health Act, 1936. Section 76.

Disposal of refuse is carried out by tipping on six of your Council's sites. Since 1951 there has been a most commendable improvement in the introduction of controlled tipping as a gradual replacement of the crude dumping which was the former practice of your Council. The serious fire at your Slack Head tip caused heavy expense to control and emphasised the desirability of minimising the nuisances.

Controlled tipping is difficult here because there is neither sufficient labour on the sites nor sufficient covering material, with the result that considerable nuisances occur. The natural beauty of the countryside ought not to be desecrated by multiple dumps of ugly human refuse. Yet the refuse must be put somewhere and the land does not yield enough covering material to hide and minimise the consequent nuisances of unsightliness, smell, flies, rats and fire. In the days of horse-drawn refuse carts and local contractors it was obviously imperative to use multiple local tips, but now motor transport has changed the situation. I think that you should aim at centralising your tips as far as practicable, thus limiting the nuisances and favouring better supervision of the tip faces.

Your Council agreed to the appointment of a man to assist in keeping your tips in proper order, and 1952 saw a further great improvement in the standard of disposal.

The position regarding your present tips at the year end was as follows :—

Slackhead, Beetham.

This is your main tip, which was opened in 1949, and it requires supervision to keep it in order. A serious fire occurred in its early days and the tip was afterwards replanned to allow less extensive tip faces and easier covering, and by now it looks as a controlled tip should be, and a model for the other sites in your District. There is ample space for many years.

Holme.

This tip is getting full but its life could be extended by some reorganisation on the site. It needs tidying up and better covering. There is ample covering material locally and what this tip needs is labour.

It is used now only for parts of Dalton and Burton and has improved considerably during 1953.

Kirkby Lonsdale.

The more I see of this tip the more I am convinced that it never ought to have been put there, and the sooner it is closed the better. It is now only partially used.

Much improvement has been made during 1952 to observe controlled tipping and this technique is strictly obligatory for a tip which is sited so near to a large residential school.

Staveley.

The site acquired in 1948 is in use and is fairly well maintained considering the lack of available covering material. There is ample scope for many years tipping.

Other Tips.

There are small tips at :—

Savin Wood, Levens.

Quarry Lots, Hutton Roof,

Inspections re Refuse Collection, Accommodation and Disposal.

| | | | | | | | |
|--|-----|-----|-----|-----|-----|-----|-----|
| Inspections and visits <i>re</i> ashplace accommodation, complaints, surveys, etc. | ... | ... | ... | ... | ... | ... | 123 |
| Notices Served <i>re</i> Refuse Service— | | | | | | | |
| Number of notices served <i>re</i> accumulations | ... | ... | ... | ... | ... | ... | 43 |
| Number of notices served <i>re</i> defective dustbins | ... | ... | ... | ... | ... | ... | 27 |
| Number of notices served <i>re</i> insanitary ashpits | ... | ... | ... | ... | ... | ... | 10 |

Salvage of Waste Material.

Salvage is not done because there is no sale for the material.

Street Cleansing.

Public Health Act, 1936. Section 77.

In the few areas where street cleansing is undertaken by your Council the streets are well maintained. The County Council undertake the remainder and maintain a similarly high standard.

FOOD AND DRUGS.

General Powers.

Food and Drugs Act, 1938.

Your Council bear most of the statutory responsibility for safeguarding the public from foodborne diseases. The main aim is directed towards securing proper and hygienic conditions for the manufacture, preparation and sale of food. The secondary aim is to trace and localise any outbreaks of disease which may occur in spite of preventive measures.

Precautions against Contamination.

Food and Drugs Act, 1938. Section 13.

Recent years have shown steady improvement in the standard of cleanliness practised by food traders and caterers. A high level has been reached by the majority, but there are still a few who lag behind their colleagues. Education and co-operation are preferable to prosecution, and I am confident that this co-operation will continue, because most traders are eager to keep their premises and staff up to scratch in the interests of enterprise and competition. The customer has now been taught to demand clean conditions, and public opinion is constantly proving to be a very powerful ally in our campaign for safer food, safer premises and safer food-handlers.

Very few food traders or caterers have taken up my challenge for them to invite their customers to look behind the scenes. It is done with pride by the shipping companies on most of the sea-going liners and I hope that we are not ashamed to do the same on land. It would have magnificent advertisement value, and the public would be left to draw their own conclusions about the others. A clean kitchen and clean staff are far more important than fancy titivations in the dining room. Every customer should feel confident that the food he eats is safe and has been safely prepared. He has a right to be so protected and your Council are the guardians of that right.

As a further help the bye-laws made under Section 15 of the Act govern the handling and wrapping of food, and also the sale of foodstuffs in the open air, but the responsibility for safe food does not rest entirely with the trader as the housewife must play her part as well. Quite a lot of strange things happen to food between the shop counter and the dinner plate, and the educational campaign has had to be carried into the home. Every link in the chain of infection must be remembered ; that chain hangs as a symbol over every water closet in the district. Personal hygiene is the keynote, whether it be fostered by posters and propaganda, or taught to the children in simple nursery jingles. Foodborne diseases, mild dysenteries and attacks of diarrhoea and vomiting are not infrequent in our homes and among our visitors. I am confident that higher standards will reduce these preventable diseases.

Legal proceedings were taken during the year against the proprietor of a café in Arnside for dirty premises and equipment. Conviction and fine resulted.

83 visits were made during the year to the 113 catering establishments in your District.

Ice-Cream Trade.

Food and Drugs Act, 1938. Section 14.

Ice Cream (Heat Treatment, etc.) Regulations, 1947.

The following premises were registered under Section 14 of the Food and Drugs Act, 1938 :—

| | | |
|---|--------|----|
| Manufacture by hot mix, cold mix, storage and sale... | ... | 4 |
| Manufacture by cold mix, storage and sale | ... .. | 3 |
| Storage and sale only | ... .. | 39 |

A comprehensive code of standards for ice cream factories, plant and retail units was circulated to the trade. 31 visits were made during the year and samples were tested. The open barrow or cart has been abolished and the enforcement of the Ice-Cream (Heat Treatment, etc.) Regulations, 1947, has greatly improved the technique of manufacture.

Prepared Meats.

Food and Drugs Act, 1938. Section 14.

The number of premises on the Register under Section 14 of the Food and Drugs Act, 1938, used for the preparation of sausages, potted meat, preserved meat and pickled foods was 14.

Milk.

I think the day is not far distant when our District will be declared free from bovine tuberculosis and the only milk allowed to be sold will be tuberculin tested milk from attested herds or heat-treated milk. Very rapid progress is being made towards that goal and we should not be distracted by side issues.

Registration of Milk Distributors and Dairies which are not Dairy Farms.

Milk and Dairies Regulations, 1949.

| | | | | |
|---|-----|-----|-----|----|
| Total number of Registered Distributors | ... | ... | ... | 18 |
| Total number of registered Dairies | ... | ... | ... | 4 |

Retail Milk.

There are estimated to be 250 retailers in your District, the majority of whom are producer-retailers, and the number of customers supplied varies from two or three to one hundred.

The retail distribution of milk is both by bottled milk and the old-fashioned loose method. Traders are becoming keener to meet the desire of the enlightened consumer for bottling. Milk-round vehicles are maintained generally in a clean condition.

Cleanliness of Milk.

Food and Drugs Act, 1938. Section 68.

No samples of milk were taken during the year for laboratory examinations.

Pathogenic Organisms in Milk.

Food and Drugs Act, 1938. Section 68.

No samples were examined biologically in guinea-pigs for the presence of tuberculosis organisms.

The finding of tubercle bacilli in milk is difficult and one must bear in mind the human biological tests on your own children with their record of new cases and deaths in past years from non-respiratory tuberculosis.

The growth of the Attested Herds Scheme and Tuberculin-Tested milk production will gradually reduce this toll of human suffering, but more extensive sampling of ungraded milks would appear to be required.

No instances of other disease-producing organisms in milk were found. We know that *Brucella Abortus*, the organism which causes contagious abortion in cattle and undulant fever in man, can be isolated from a good proportion of bulked milk supplies, and it is probable that mild infections constantly occur. No serious cases have been encountered and the veterinary profession is taking steps to inoculate cattle against the disease.

One notice was issued under the Milk and Dairies Regulations prohibiting a person from taking part in dairying activities.

Designated Milks.

Milk (Special Designation) Regulations.

Your District Council is responsible for the granting of dealers' and supplementary annual licences for the sale of designated milks. At the year end 16 dealers' licences and no supplementary licences were in force.

Adulteration of Milk and Other Foods.

Food and Drugs Act, 1938. Section 1-7.

This matter is the responsibility of the County Council and I anticipate that the County Medical Officer of Health will include in his Annual Report some information relating to this aspect.

Slaughterhouses.

Food and Drugs Act, 1938. Sections 57-61.

There are no licensed slaughterhouses nor knackery yards in the District. Centralisation of slaughtering under the arrangement of the Ministry of Food continues. Casualty slaughters are inspected on the site in every case.

Condemnation of Meat.

Food and Drugs Act, 1938. Sections 10 and 12.

All slaughtering is carried out in abattoirs situated in the area of other authorities, and the meat is inspected therein. The motor vehicles used

for the conveyance of meat are not entirely satisfactory. No meat was condemned in the course of distribution.

Condemnation of Other Foods.

Food and Drugs Act, 1938. Sections 10-12.

The following foodstuffs were condemned during the year :-

| | | | | | | | | |
|--------------------|-----|-----|-----|-----|-----|-----|-----|----------|
| Craw Fish | ... | ... | ... | ... | ... | ... | ... | 1 tin. |
| Irish Stew | ... | ... | ... | ... | ... | ... | ... | 3 tins. |
| Tomato Puree | ... | ... | ... | ... | ... | ... | ... | 11 tins. |
| Shoulder of Ham | ... | ... | ... | ... | ... | ... | ... | 1 tin. |
| Pork Luncheon Meat | ... | ... | ... | ... | ... | ... | ... | 2 tins. |
| Corned Beef | ... | ... | ... | ... | ... | ... | ... | 1 tin. |
| Butter | ... | ... | ... | ... | ... | ... | ... | 12 lbs. |
| Chicken | ... | ... | ... | ... | ... | ... | ... | 2 tins. |

Method of Disposal of Condemned Food.

The Minister of Health requires me to describe the current methods for the disposal of condemned food. In this District it is by burial at Slackhead Tip.

GENERAL SANITARY INSPECTION.

Your Council employs one Chief Sanitary Inspector and two additional Sanitary Inspectors. The salary is apportioned between the sanitary inspection duties and the other duties in a proportion approved by the Minister of Health. You receive through the County Council a grant of one-half of that apportionment of the salary allocated to sanitary inspection, and this should therefore be the basis upon which time is devoted to the various duties.

For the past few years the control of civil builders' work threw an undue strain upon the department to the prejudice of sanitary inspection. This was greatly relieved during 1948, but a very much greater burden was imposed by your Council accepting certain delegated powers under the Town and Country Planning Act, 1947. This has resulted in a volume of extra work which is quite disproportionate to the benefits you seem to receive by such limited delegated powers. I am keeping this matter under close review.

Impending legislation suggests that many extra burdens will be imposed upon the department in the near future, and some extra help may be needed,

Summary of Inspections carried out during the year.

| | |
|---|-----|
| Dwelling houses inspected with a view to Statutory Action under the Housing Acts | 17 |
| Dwelling houses inspected with a view to Informal Action under the Housing Acts | 56 |
| Number of re-inspections for this purpose | 199 |
| General inspections and visits for nuisances (excluding above) ... | 223 |
| Visits and inspections <i>re</i> movable dwellings and camping sites ... | 63 |
| Bakehouses inspected | 15 |
| Ice Cream premises visited and inspected | 31 |
| Factories and Workshops—visits and inspections | 49 |
| Piggeries | 7 |
| Inspections <i>re</i> drainage works—existing and new premises ... | 563 |
| Inspections and visits <i>re</i> private water supplies | 80 |
| Inspections <i>re</i> food preparing premises | 83 |
| Inspections <i>re</i> licensed premises | 12 |
| Visits and inspections <i>re</i> Infectious Diseases | 37 |
| Disinfections | 33 |
| Inspections <i>re</i> building works | 583 |
| Visits and inspections <i>re</i> temporary buildings | 83 |
| Inspections <i>re</i> accumulations | 31 |
| Visits and inspections <i>re</i> refuse service | 123 |
| Inspections <i>re</i> septic tanks | 135 |
| Visits and inspections <i>re</i> sanitary accommodation, privies, privy-middens, pails, W.C.'s | 243 |

Offensive Trades.

Public Health Act, 1936. Section 107.

There are no offensive trades in the District.

Factories.

Factories Act, 1937.

There are 147 factories on the Register. 49 inspections were made and four written notices served. No references were made to H.M. Inspector and none were received from him. No prosecutions were required.

No lists of outworkers were supplied to your Council by factory owners, and I have no official knowledge of any cases of default in this respect.

There are no basement bakehouses in the District. No certificates were issued during the year regarding means of escape from factories in case of fire.

Form 572 (revised) was sent directly to the Ministry of Labour and National Service, giving details of your Council's administration of the relevant sections of Parts I and VIII of the Factories Act, 1937, in accordance with Section 127 of that Act.

It has not been possible in the past to perform these duties in an adequate manner, but it is hoped that next year may bring some improvement. Liaison with H.M. Inspector is very good and there is no reason to believe that factory conditions have suffered unduly by the arrears of work incurred.

Inspections.

| Premises. | Number on Register. | Number of | | |
|---|---------------------------|-------------------|---------------------|--------------------------|
| | | Inspec- tions. | Written Notices. | Occupiers Prosecuted. |
| Factories in which Sections 1, 2, 3, 4 and 6 are to be enforced by Local Authorities | 45 | 9 | — | — |
| Factories not included in (1) in which Section 7 is enforced by the Local Authority | 102 | 40 | 4 | — |
| Other premises in which Section 7 is enforced by the Local Authority (excluding out- workers' premises) | — | — | — | — |
| TOTAL | 147 | 49 | 4 | — |

Cases in which Defects were found.

| Particulars | Number of cases in which defects were found | | | | Number of cases in which prosecutions were instituted |
|--|---|----------|-------------------|----------------------------|---|
| | Found | Remedied | To H.M. Inspector | Referred By H.M. Inspector | |
| Want of cleanliness (S.1) | 2 | 1 | — | — | — |
| Overcrowding (S.2) | — | — | — | — | — |
| Unreasonable temperature (S.3) ... | — | — | — | — | — |
| Inadequate ventilation (S.5) | — | — | — | — | — |
| Sanitary Conveniences (S.7) :— (a) Insufficient | 1 | 1 | — | — | — |
| (b) Unsuitable or defective | 1 | 1 | — | — | — |
| (c) Not separate for sexes | — | — | — | — | — |
| Other offences against the Act (not including offences relating to Outwork) | — | — | — | — | — |
| Total | 4 | 3 | — | — | — |

Shops Act, 1950.

25 shop premises were visited during the year. These duties are not adequately covered due to the prior claim of other work.

Common Lodging Houses.

Public Health Act, 1936. Part IX.

There are no Common Lodging Houses in your District.

Rent Restriction Acts.

No action was taken during the year and no rent book entries were reported to be irregular.

Smoke Abatement.

Public Health Act, 1936. Sections 101-106.

No action was required.

Rag Flock Act, 1951.

There is one registration.

National Assistance Act, 1948. Section 47.

It was not necessary during the year to deal with any cases requiring removal but two were under observation.

Laboratory Service.

Laboratory facilities were available both at Kendal and Carlisle for all public health purposes. During 1947 a new scheme was inaugurated by the Public Health Laboratory Service for the performance of all laboratory examinations of a preventive and epidemiological nature, free of charge, to the Local Authority and the patient. This should do much to encourage the freer use of modern diagnostic methods by general practitioners and your Health Department.

Bye-laws.

Bye-laws on public health matters are in force for :—

- Buildings.
- New Streets.
- Drainage of existing buildings.
- Slaughterhouses.
- Tents, Vans and Sheds.
- Food Handling.

New Legislation.

The Local Government (Miscellaneous Provisions) Act, 1953, became operative on 14th August, 1953.

APPENDIX "A"

LABORATORY EXAMINATION OF PUBLIC WATER SUPPLIES

| Nature of Test. | Standards Max. | Barbon | Burnside | Casterton | Garnett Bridge | Garth Row | Grayrigg | Kirkby Lonsdale | Lupton Raw | Lupton Treated | Staveley |
|---------------------------|----------------|----------|----------|-----------------|----------------|-----------------|-----------------|-----------------|---------------|---------------------------|----------|
| <i>Pr. coli</i> count 37 | 3-10 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 90 | 0 | 0 |
| <i>Falcal coli</i> strep. | 0 | | + | | | | | | + | | |
| Character | — | Clear | — | Clear | Clear | Clear | Clear | Clear | Clear | Turbid with brown deposit | Clear |
| Reaction pH. | — | 7.2 | 8.0 | 6.8 | 8.4 | 6.8 | 7.6 | 6.8 | 6.8 | 7.3 | 7.6 |
| Ammonical Nitrogen | 0.041 | 0.015 | 0.024 | 0.012 | 0.045 | 0.022 | 0.049 | 0.016 | 0.116 | 0.028 | 0.02 |
| Albuminoid Nitrogen | 0.066 | 0.058 | 0.32 | 0.045 | 0.075 | 0.032 | 0.131 | 0.025 | 0.362 | 0.116 | 0.025 |
| Dissolved Solids... | 1000 | 68 | 50 | 64 | 84 | 140 | 35 | 90 | 97 | 40 | 138 |
| Total Hardness | 300 | 26 | 46 | 29 | 14 | 47 | 29 | 39 | 29 | 32 | 58 |
| Non-Carbonate | — | 2 | 26 | 0 | 0 | 9 | 3 | 1 | 0 | 13 | 37 |
| Carbonate | — | 24 | 20 | 29 | 14 | 38 | 26 | 38 | 29 | 19 | 21 |
| Chlorides... | 30 | 8.5 | 10 | 10.5 | 6.0 | 10.5 | 11.5 | 13.0 | 9.0 | 10.5 | 10.0 |
| Nitrates | 1.0 | — | 1.0 | — | — | — | — | — | — | — | — |
| Nitrites | — | — | 0 | — | — | — | — | — | — | — | — |
| O ₂ Absorbed | 1.0 | 0.6 | 0.33 | 0.24 | 1.06 | 0.2 | 7.7 | 0.28 | 4.52 | 1.2 | 0.12 |
| Heavy Metals | 0 | 0 | 0 | Zinc approx. .6 | 0 | Zinc approx. .5 | Zinc approx. .2 | 0 | Iron 1 | — | Show |
| Plumbosolvency | 0 | — | .5 | Nil | Mod. | Showery | Showery | — | — | — | — |
| Rainfall, 24 hours | — | Nil | Light | Nil | Mod. | Showery | Showery | Dry | Heavy Showers | Dry | Showery |
| Date Sampled | — | 6/10/53 | 3/11/47 | 6/10/53 | 8/12/53 | 3/12/53 | 30/11/53 | 8/12/53 | 29/9/53 | 8/12/53 | 30/11/53 |
| Laboratory | — | Carlisle | Kendal | Carlisle | Carlisle | Carlisle | Carlisle | Carlisle | Carlisle | Carlisle | Carlisle |

Chemical analyses expressed in parts per million.

